DRAPER®

THE TOOL COMPANY

ROTARY MOWER

■ **STOCK No. 60604** 240V.
60605 240V.

■ **PART No. LM900**
LM1200

• INSTRUCTIONS •

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY TO ENSURE THE SAFE AND EFFECTIVE USE OF THIS TOOL.

02/2000

GENERAL INFORMATION

This manual has been compiled by Draper Tools and is an integrated part of the power tool equipment, which should be kept with the machine.

This manual describes the purpose for which this tool has been designed and contains all the necessary information to ensure its correct and safe use. We recommend that this manual is read before any operation of the machine, before performing any kind of adjustment to the machine, and prior to any maintenance tasks. By following all the general safety instructions contained in this manual, it will ensure both machine and operator safety, together with longer life of the tool itself.

All photographs and drawings in this manual are supplied by Draper Tools to help illustrate the operation of the machine.

Whilst every effort has been made to ensure accuracy of information contained in this manual, the Draper Tool policy of continuous improvement determines the right to make modifications without prior warning.

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DECLARATION OF CONFORMITY

We
Draper Tools Ltd. Hursley Road, Chandler's Ford, Eastleigh, Hampshire. SO53 1YF. England.

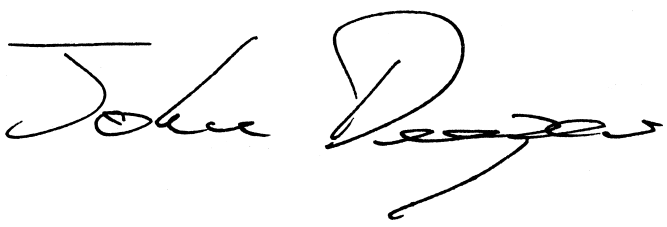
Declare under our sole responsibility that the product:

Part Number:- LM900 & LM1200. **Stock No.** 60604 & 60605.

Description:- Rotary Lawn Mower

To which this declaration relates is in conformity with the following directive(s)

98/37/EC, 89/336/EEC, 73/23/EEC & 84/538/EEC.



J.N. Draper
Managing Director
Issue Date: 09/02/2000

SPECIFICATION

Stock No.	60604	60605
Part No.	LM900	LM1200
Voltage	240V/50Hz	240V/50Hz
Induction Motor	900W	1200W
Cutting Capacity	320mm Ø	380mm Ø
Cutting Heights	3 (20 - 45mm approx.)	3 (25 - 55mm approx.)
RPM	2850	2850
Grass Box Capacity	20Ltr.	30Ltr.
Advised Maximum Cutting Area	250m^2 (approx)	400m^2 (approx).
Sound Power Level	< 96dB(A)	< 96dB(A)
Sound Pressure Level	< 90dB(A)	< 90dB(A)
Vibration Level	< 2.5m/s^2	< 2.5m/s^2
Nett Weight	10kg	16kg

The typical sound pressure level of these tools is 90dB(A) - WEAR EAR PROTECTION.

GUARANTEE

Draper machine tools have been carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship for a period of 12 months from the date of purchase except where tools are hired out when the guarantee period is reduced to ninety days from the date of purchase.

Should the machine develop any fault, please return the complete tool to your nearest authorized warranty repair agent or contact Draper Tools Limited, Chandler's Ford, Eastleigh, Hampshire, S653 1YF. England. Telephone (023) 8026 6355.

If upon inspection it is found that the fault occurring is due to defective materials or workmanship, repairs will be carried out free of charge. This guarantee does not apply to normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accident, or repairs attempted or made by any personnel other than the authorised Draper warranty repair agent.

This guarantee applies in lieu of any other guarantee expressed or implied and variations of its terms are not authorized.

Your Draper guarantee is not effective unless you can produce upon request a dated receipt or invoice to verify your proof of purchase within the 12 month period.

Please note that this guarantee is an additional benefit and does not affect your statutory rights.

Draper Tools Limited.

GENERAL SAFETY INSTRUCTIONS FOR POWER TOOLS

WARNING
Please read the following instructions carefully, failure to do so could lead to serious personal injury.

IMPORTANT
Draper Tools Limited recommends that this machine should not be modified or used for any application other than that for which it was designed. If you are unsure of its relative applications do not hesitate to contact us in writing and we will advise you.

1. **KNOW YOUR POWER TOOL**
   Read and understand the owner's manual and labels affixed to the tool. Learn its application and limitations as well as the specific potential hazards peculiar to this tool.
2. **KEEP WORK AREA CLEAN**
   Cluttered areas and benches invite accidents. Floors must not be slippery due to oil or sawdust.
3. **AVOID DANGEROUS ENVIRONMENTS**
   Do not use power tools in damp or wet locations, or expose them to rain. Keep work area well lit. Provide adequate space surrounding the work area. Do not use in environments with a potentially explosive atmosphere.
4. **KEEP CHILDREN AWAY**
   All visitors should be kept a safe distance from work area.
5. **STORED TOOLS**
   When not being used, all tools should be stored in a dry, locked cupboard or out of the reach of children.
6. **WEAR PROPER CLOTHING**
   Do not wear loose clothing, neckties or jewellery (rings, wristwatches) to catch in moving parts. NONSLIP footwear is recommended. Wear protective hair covering to contain long hair. Roll long sleeves above the elbow.
7. **USE SAFETY GOGGLES (Head Protection)**
   Wear CE approved safety goggles at all times. Normal spectacles only have impact resistant lenses, they are NOT safety glasses. Also, use face or dust mask if application is dusty and ear protectors (plugs or muffs) during extended periods of operation.
8. **NOISE LEVELS**
   Some types of machines may have high noise levels when working. In such cases ear protection must be worn.
9. **VIBRATION LEVELS**
   Hand held power tools produce different vibration levels. You should always refer to the specifications and relevant Health and Safety guide.
10. **DUST EXTRACTION**
    If your tool is fitted with a dust extraction fitting, always ensure that it is connected and being used with a dust extractor. Vacuum cleaners can be used if suitable for the material being extracted.
11. **PROTECT YOURSELF FROM ELECTRIC SHOCK**
    When working with power tools, avoid contact with any earthed items (e.g. pipes, radiators, hobs and refrigerators, etc.). If you are using a power tool in extreme conditions (e.g. high humidity or generating metal dust), always use an RCD (residual current device) at the power socket.
12. **STAY ALERT**
    Always watch what you are doing and use common sense. Do not operate a power tool when you are tired or under the influence of alcohol or drugs.
13. **WHEN WORKING OUT OF DOORS**
    Only use extension leads designed for that purpose.
14. **ACCESS TO MAINS SOCKET**
    If a stationary machine is fitted with a moulded plug and cable, the machine should not be positioned so that access to the mains socket is restricted.
15. **DISCONNECT POWER TO THE TOOL**
    When not in use, before servicing and when changing accessories such as cutters, etc.
16. **AVOID ACCIDENTAL STARTING**
    Make sure the switch is in the OFF position before plugging the machine into the power supply.
17. **NEVER LEAVE MACHINE RUNNING UNATTENDED**
    Turn power off. Do not leave machine until it comes to a complete stop.
18. **DO NOT ABUSE THE CORD**
    Never carry the tool by the power cable or pull it from the socket. Keep the power cable away from heat, oil and sharp edges.
19. **NEVER STAND ON TOOL**
    Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted. Do not store materials above or near the tool, so that it is necessary to stand on the tool to reach them.
20. **CHECK DAMAGED PARTS**
    Check for damage to parts, breakage of parts, mountings and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
21. **KEEP GUARDS IN PLACE**
    And in working order.
22. **MAINTAIN TOOLS WITH CARE**
    Keep tools sharp and clean for the best and safest performance. Follow instructions for lubricating and changing accessories. All extension cables must be checked at regular intervals and replaced if damaged. Always keep the hand grips on the tool clean, dry and free of oil and grease.
23. **USE RECOMMENDED ACCESSORIES**
    Consult the owners manual for recommended accessories. Follow the instructions that accompany the accessories. The use of improper accessories may cause hazards.
24. **REMOVE ADJUSTING KEYS AND WRENCHES**
    Form a habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.
25. **SECURE WORK**
    Use clamps or a vice to hold work. This frees both hands to operate the tool.
26. **DO NOT OVERREACH**
    Keep proper footing and balance at all times.
27. **USE RIGHT TOOL**
    Do not force the tool or attachment to do a job for which it was not designed.
28. **DO NOT FORCE TOOL**
    It will do the job better and safer at the rate for which it was designed.
29. **DIRECTION OF FEED**
    Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
30. **WHEN DRILLING OR SCREWING INTO WALLS**
    Always make sure there is no danger of hitting any hidden power cables, water or gas pipes in the wall.

IMPORTANT NOTE
Residual Risk. Although the safety instructions and operating manuals for our tools contain extensive instructions on safe working with power tools, every power tool involves a certain residual risk which can not be completely excluded by safety mechanisms. Power tools must therefore always be operated with caution !

DRAPER
THE TOOL COMPANY

ADDITIONAL SAFETY RULES FOR ROTARY MOWERS

1. Always disconnect your mower from the electrical supply before cleaning, inspecting or adjusting any part of it, or if the supply cable has become damaged or entangled.
2. To protect your feet, always wear stout shoes or boots. Freshly cut grass is damp and slippery. Do not mow barefoot or in open sandals.
3. Always check that your lawn or cutting path is clear of all sticks, stones, wire or other debris. Contact with such debris may damage your mower and could be thrown by the blade.
4. Wear long trousers to protect your legs from any debris left on the lawn or cutting path that may be thrown by the blade.
5. Do not use your mower in the rain and do not allow it to get wet. Avoid using the mower in wet grass if possible.
6. Before using your mower visually inspect the blade and rotating parts for damage.
7. Keep children, animals and other adults at least 6 m (20 ft) away from the cutting area.
8. Start your mower carefully with feet well away from the blades.
9. When the motor is running the safety distance, given by the handle, must always be maintained.
10. Do not leave your mower unattended whilst it is connected to the electrical supply.
11. Never allow people unfamiliar with these instructions to use the mower.
12. Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.
13. This mower is fitted with a blade brake which stops the blade from rotating within three seconds once the switch box lever is released. Under no circumstances should you attempt to turn your mower over on to its side whilst the motor is still running, or attempt to stop the blade, always allow it to stop on its own.
14. If the blade strikes an object, release the switch lever at once, disconnect your mower from the electrical supply and when the blade is stationary, turn your mower on to its side and examine the blade and nut for damage. Repair or replace any damaged parts before restarting and operating the mower.
15. Always disconnect your mower from the electrical supply before lifting or carrying.
16. Stop the blade if the mower has to be tilted up for transportation when crossing surfaces other than grass.
17. Do not tilt the mower when starting the motor. (The only exception is when the mower will not start due to long grass, in which case do not tilt it more than absolutely necessary and lift only the part which is away from the operator).
18. Do not pull your mower towards you or walk backwards when mowing.
19. Walk, never run.
20. Always mow across the face of slopes, never up and down. Exercise extreme caution when changing direction on slopes. Do not mow excessively steep slopes and always wear non-slip footwear.
21. Mow only in daylight.
22. Never use the mower without the grass box in place.
23. Switch the motor off and wait until the blade comes to a complete stop before removing the grass box.
24. Switch the motor off and disconnect from the power supply, wait until the blade comes to a complete stop before unclogging the chute.
25. Switch the motor off and disconnect the power supply, wait until the blade comes to a complete stop before making a wheel height adjustment.
26. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
27. If the mower should start to vibrate abnormally switch the motor off, wait until the blade comes to a complete stop, disconnect the power supply and check immediately for the cause. Vibration is generally a warning of trouble.
28. The cutting edges of the mower blade are sharp and can lacerate (cut) skin tissue. Care should be taken when doing any repair work on or around the mower blade. To prevent injury, it is recommended that gloves are worn or the cutting edge of the blade be wrapped with newspaper or any other suitable material.
29. Do not use solvent or cleaning fluids to clean your mower. Use a blunt scraper to remove grass and dirt. Always disconnect from the electrical supply before cleaning.

POWER SUPPLY

CONNECTING YOUR MACHINE TO THE POWER SUPPLY:

To eliminate the possibility of an electric shock your machine has been fitted with a BS approved, non rewireable moulded plug and cable which incorporates a fuse, the value of which is indicated on the pin face of the plug. Should the fuse need to be replaced an ASTA approved BS1362 fuse must be used of the same rating, marked thus ASTA.

The fuse cover is detachable, never use the plug with the cover omitted. If a replacement fuse cover is required, ensure it is of the same colour as that visible on the pin face of the plug (i.e. red).

If the fitted plug is not suitable, it should be cut off and destroyed. *The end of the cable should now be suitably prepared and the correct type of plug fitted. See below.

***WARNING:**

A plug with bare flexible wires exposed is hazardous if engaged in a live power socket outlet.

WARNING: THIS APPLIANCE IS DOUBLE INSULATED.

Blue - Neutral, Brown - Live.

As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows.:

The wire which is coloured blue must be connected to the terminal which is marked with the letter 'N' or coloured black or blue.

The wire which is coloured brown must be connected to the terminal which is marked with the letter 'L' or coloured red or brown.

EXTENSION LEAD CHART:

Extension lead sizes shown assure a voltage drop of not more than 5% at rated load of tool.

Ampere rating (on Name plate)	3	6	10	13
Extension cable length	Wire Size mm^2			
7.5m	0.75	0.75	1.0	1.25
15m	0.75	0.75	1.0	1.5
22.5m	0.75	0.75	1.0	1.5
30m	0.75	0.75	1.25	1.5
45m	0.75	1.25	1.5	2.5

IMPORTANT: A residual current circuit breaker (RCD) is recommended to be used for all applications.

UNPACKING AND CHECKING CONTENTS

WARNING

For your own safety, do not connect the plug to the power supply until all the assembly steps are completed and you have read and understood the safety and operational instructions.

Carefully unpack the mower and all the loose items from the carton. Fig.A. illustrates the mower and all the loose parts packed in the carton. Referring to Fig.A. check that all the parts are present.

PART No. LM1200 SHOWN FIG A

1. Mower	(1)	5. Lower handles	(2)
2. Top handle	(1)	6. Handle screws	(2)
3. Switch	(1)	7. Spanner (LM1200 only)	(1)
4. Bolts, caps and knobs	(2)	8. Grass box	(1)

If any parts are missing or damaged please contact the stockist where your purchase was made or call the Draper Power Helpline on (023) 8049 4344.

GETTING TO KNOW YOUR ROTARY MOWER

PART No. LM1200 SHOWN FIG B

A. Handle
B. Switch with safety button
C. Handle knob
D. Grass flap
E. Motor cover
F. Deck
G. Adjustable wheel
H. Grass box

ASSEMBLY INSTRUCTIONS

Assembly of the mower

1. Locate from the loose parts the two lower handle parts and the two handle screws.

   Insert the short end of each handle into the sockets at the rear of the mower deck so the concave side of the handle is innermost.

   Once the handles are positioned locate the holes in the side of the deck that are in line with the socket and make sure the corresponding hole in the handle lines up. Screw in the self tapping handle screws but do not over tighten as this will damage the plastic.(Fig.1).

2. Locate from the loose parts the two bolts, caps, knobs and top handle. Make sure the cable restraint is positioned over the handle below the switch before the handles are assembled. Push one of the bolts through the top handle on the right hand side (same side as the switch) from the inside so the square under the bolt head engages with the square in the handle. Put the second bolt into the left hand side of the handle from the inside so the bolt only just protrudes through the handle (Fig.2). Make sure the motor lead is inside the handles and feed the first bolt through the right lower handle and then push the other bolt through the other lower left handle. Fit both caps onto the bolts so the hollow side faces outwards and then secure with the two knobs.

3. Use the cable clips supplied to clip the motor lead to the handles with the cable restraint above the uppermost clip (Fig3).

Assembly of the grass box

1. Offer the two halves of the grass box together. Clip the two halves together ensuring that all the tongues locate into their corresponding grooves and all the clips are secure (Fig.4).

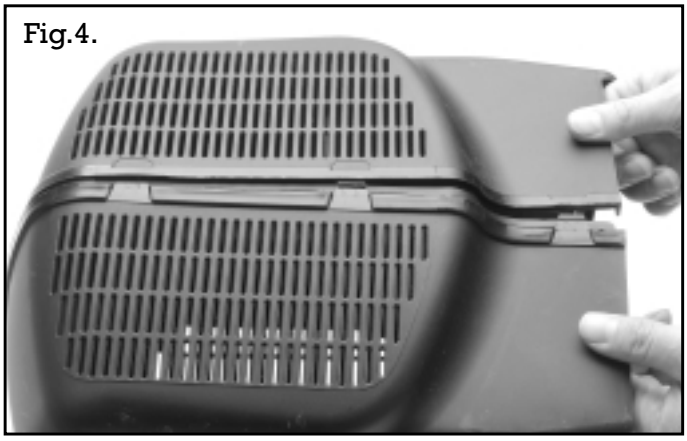
2. Carefully fold the two flaps under the top handle together making sure the fingers knit together. Do the same for the flaps under the lower handle.

Fig.1.

Fig.2.

Fig.3.

Fig.4.



ADJUSTMENTS & OPERATION

Wheel height adjustment

Warning

Before adjusting wheel assembly, ensure that your mower is disconnected from the mains.

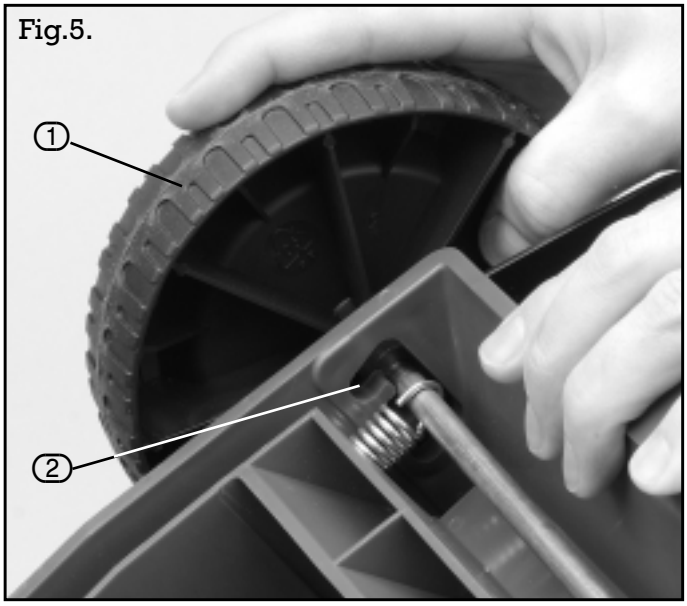
Each of the two axle wheels has its own means of height adjustment, which gives three cutting height positions.

To select a cutting height, move the wheel (1) into the slot required using the spring system (2).(Fig.5)

Adjust the other three wheels in the same way.

To ensure an even cut, please make sure that all four wheels are set to the same position, however in some situations having the front wheels one notch lower than the rear wheels may produce a better result.

Fig.5.



Operation

Note:- Draper Tools recommends that the mower is used with a Residual Current Device (RCD).

1. The top handle is equipped with a hooked cable restraint which holds the cable to prevent it being pulled out of the switch. Hook the cable into the restraint to protect the lead from accidental tears (Fig.6).
2. Adjust the wheel height if required.
3. Fit the grass box.
4. Connect the mower to a suitable power supply.
5. The mower is equipped with an electrical safety switch to protect against accidental starting and a motor brake to stop the motor in less than three seconds once the switch is off.
6. To start the mower depress the safety lock-off button on the switch box, and whilst still depressed pull the switch lever (Fig.7). The mower will start.

   To stop the mower release the lever. The brake will operate and the mower will stop in less than three seconds.

Fig.6.

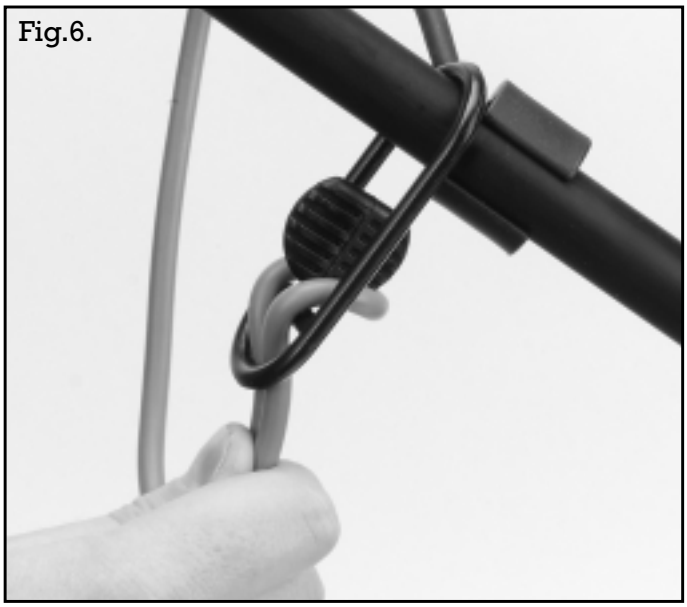
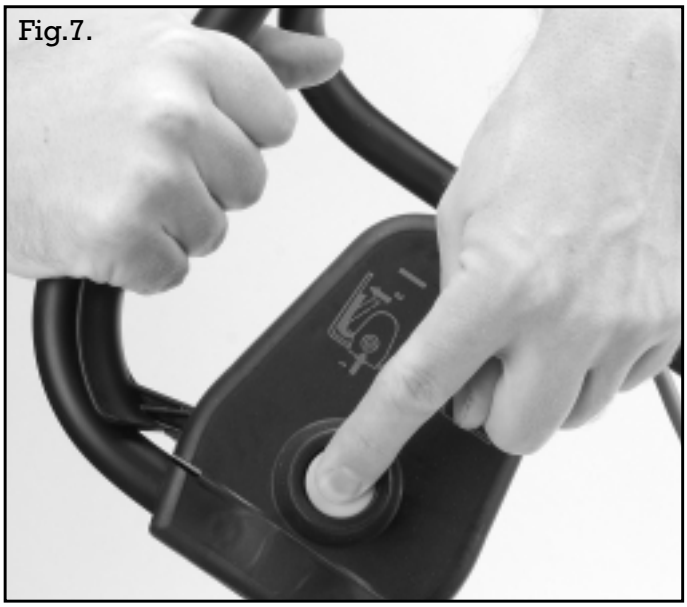


Fig.7.



MAINTENANCE AND TROUBLE SHOOTING

Maintenance

Inspect the mower before each use for damage or loose parts.

Clean the mower after each use and make sure the blade is still sharp. If the blade is blunt have it sharpened before the next time the mower is used.

Protect the blade against rusting by covering it with oil or a rust inhibitor when the mower is stored for the winter.

Fault	Remedy
Mower will not start	1. Check power supply. 2. Check the plug fuse and replace if necessary. 3. With the mower disconnected from the power supply check the blade rotates (there is some friction due to the brake). If the blade does not move contact a service repair agent.
Mower vibrates in use	**Stop using immediately.** Disconnect the mower from the power supply, wait until the blade has stopped and then check to see if the blade bolt is loose, tighten if necessary. If the blade bolt is already tight contact a service repair agent.
Mower does not pick up the grass cuttings	1. Grass box is full. Empty grass box. 2. Grass is wet. Wait until the grass has dried. 3. The under side of the deck is clogged with grass cuttings. Disconnect the mower from the power supply and clean the under side of the deck. 4. Blade is blunt or damaged. Sharpen or replace as required.

POWER DIVISION HELPLINE:
(023) 8049 4344

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YOUR DRAPER STOCKIST

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